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CALIFORNIA REDWOOD - HOMES -



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The Redwoods were born with the Christian Saviour

REDWOOD is lumber from the "big trees" of California—the Eighth Wonder of the World. Scientists call them *Sequoia sempervirens*, which, when translated into our every-day tongue, means "Sequoia ever-living." Sequoia is an Indian name; the name of a chief of great power and influence among his people. It was natural, therefore, for the Indians to name the giant trees after their most powerful chief.

They are wonderful trees. Their living power is without peer among perishable plant and animal life. The secret of their great age is resistance to rot and fire, and practical immunity to the attack of insect life and fungus growth so destructive to most other kinds of wood. In the forests, the Redwoods have fought decay and fire down the sweep of many centuries—they lived on sturdy and strong while other forest trees matured and died in successive crops.

The Redwoods are the oldest living things in the world! Many were sturdy saplings 2000 years ago when the Three Wise Men of the East followed the Star of Bethlehem to the manger wherein the Christian Saviour lay.

By a freak of nature the Redwoods grow nowhere else in the world but in California. Their range is confined to a strip along the Pacific Coast north of San Francisco Bay to the Oregon State line, and extending inland not more than 10 to 20 miles. The principal stand of commercial lumber today is in the three north coast counties of Mendocino, Humboldt and Del Norte. Their growth ranges from the sea level to an altitude of 2500 feet.

The Redwoods grow in what is known as the "fog belt," and thrive only in excessive moisture. There are millions of trees, and estimated by the Government to contain between 50,000,000,000 and 60,000,000,000 board measure feet of lumber—more than enough to keep all the saw-mills now cutting Redwood busy day and night for 100 years. The Redwoods grow big and dense, yielding on the average from 75,000 to 100,000 board feet of commercial lumber per acre. There are quite a number of instances where the Redwoods grow so dense and so big that a single acre has yielded more than 1,000,000 board feet of lumber.

WILL NOT SHRINK, SWELL OR WARP

C A L I F O R N I A R E D W O O D

The Redwood forest is one of the sublimities of nature. The massive trees, with their straight trunks covered with cinnamon-colored bark and fluted from the base to the apex of the tree like a Corinthian column, are as impressive as the cold, silent walls of an ancient cathedral. They grow from 5 to 25 feet in diameter, and from 75 to 300 feet in height. The great size and height of these trees can best be appreciated when it is known that, if hollowed out, one of the large Redwoods would make an elevator shaft for the famous Flatiron Building in New York; in height it would tower 50 feet above the torch of the Statue of Liberty in New York Harbor! They are so large that a single tree has produced enough lumber to build a church at Santa Rosa, California, that will seat 500 people.

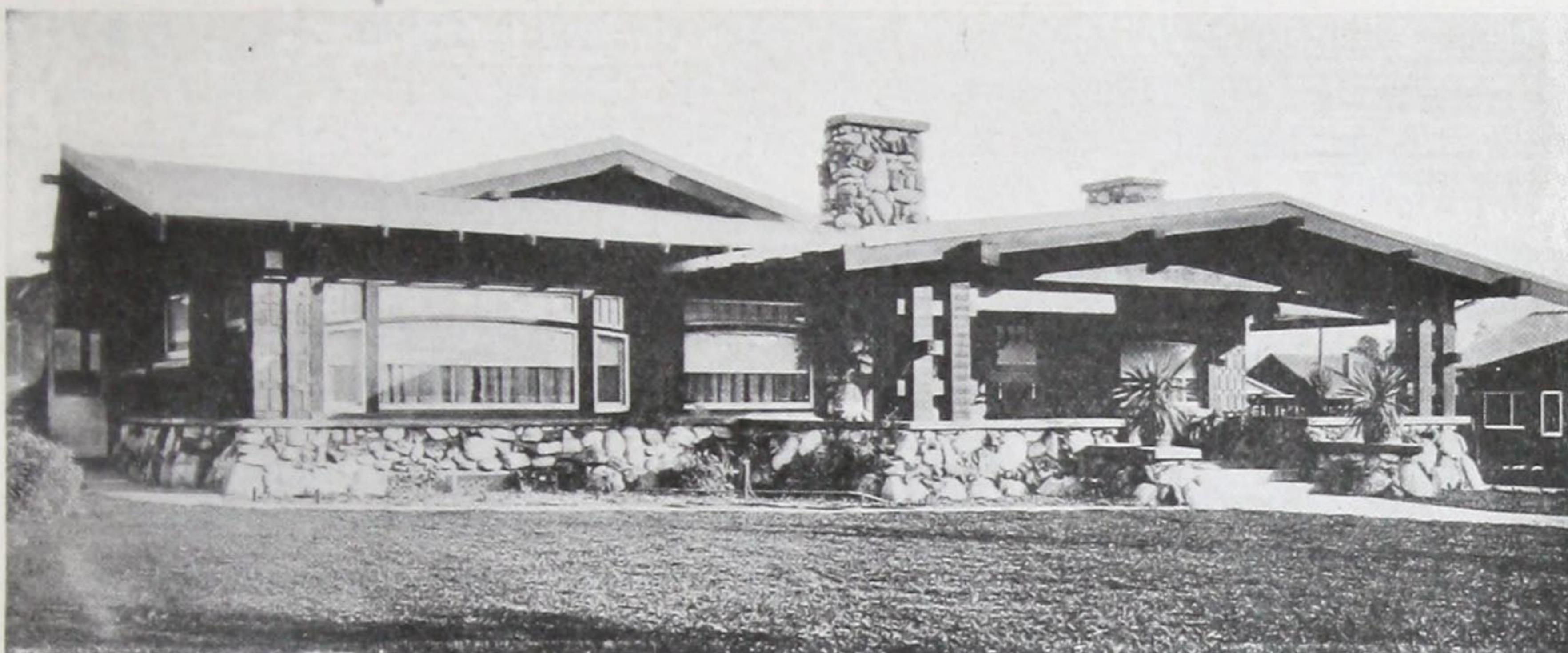
The enormous logs make it necessary to use the most powerful and expensive logging machinery. Many of the large logs must be split with gunpowder before they can be handled on the saw carriage at the mill. It is not uncommon for a butt log (the first cut above the ground) to weigh from 30 to 50 tons, according to the diameter of the tree. The butt cut is usually 16 feet in length.

One of the strange things about the Redwoods is the root formation, which is slight in comparison with the size of the tree. Redwood actually has an insecure footing. There is no tap root to push straight down into the earth to give the tree stability. The roots radiate a few feet below the surface of the soil. It is supposed they protect themselves by dense growth. The floor of the forest is covered with a luxuriant growth of magnificent ferns and beautiful rhododendrons.

The *Sequoia gigantea*, or *Sequoia washingtonia*, as the United States Forest Service refer to them, are the "big trees" of the tourist. They are first cousins of the Redwoods. Geologists assert that they are the lone living survivors of all plant and animal life that existed before the glacial age. The few remaining trees are confined to an area of about 50 square miles on the western slope of the Sierra Nevada Mountains, in central California, and of which the Yosemite Valley is a part. Many of these trees are 4000 years of age—and some bold scientists have estimated one to be from 8000 to 10,000 years old! They are located in an altitude of from 4000 to 7000 feet above sea-level, and bear evidence of having passed maturity and are in their decline. If the decline lasts proportionately as long as it took the trees to reach maturity, they are still good for untold centuries. These "big trees" are found only in protected valleys and spots in the mountains, indicating the cause of their survival of the glacial upheaval. The "Grizzly Giant" in Mariposa Grove, Yosemite Park, is 91 feet in circumference at the ground, and its first branch, which is 125 feet from the ground, is 20 feet in circumference. The "General Sherman" is 280 feet high, 103 feet circumference at the ground, which means a diameter of $36\frac{1}{2}$ feet, and at a point 100 feet from the ground it is 17.7 feet in diameter. These are two of the most noted of the "big trees."

The "big trees" of California afford an inexhaustible reservoir of information for the scientist who reads this story of the past by the study of the annular ring growth. By means of this he is able to determine the season and locate with a degree of definiteness climatic conditions and changes on the Pacific Coast as far back as 4000 years ago!

R E S I S T S F I R E A N D R O T



A roomy, light, airy and most charming type of the Redwood bungalow, and especially suited to the large lot

The California Bungalow

THE bungalow is distinctly a California ideal. It is the architect's refinement of the original settler's cabin. To be a real California bungalow it must be built, from mudsill to the shingle roof, of California Redwood. The California bungalow is the most charming, cozy, and comfortable form of home. As a type it is the cheapest to construct and affords the most convenient arrangement for the family.

The bungalow is the type of home within reach of the ordinary purse, and it has been successfully transplanted to all parts of the country. If built of California Redwood it combines durability with fire resistance and makes possible unlimited combinations of artistic effects in the color scheme of its interior finish.

The House Builder's Wood

For home building Redwood is the most durable and serviceable material you can use. If Nature, when she created Redwood, had deliberately set out to most generously take account of our present-day needs in house construction, as well as our artistic appetites, she could hardly have improved her work. She achieved a miracle in making an "all-purpose" wood so richly adaptable to not only the rough, but also to the more refined uses of lumber. She put

into every Redwood tree a variety of grain, grade and texture probably not paralleled in any other species of wood.

In California, where Redwood is so well known, architects and builders recommend and use it where long life, artistic finish and "no-worry service" is wanted. Redwood is an asset in building.

From mudsill to shingled roof Redwood is ideally adaptable for every purpose, except uncovered interior floors.

WILL NOT SHRINK, SWELL OR WARP

C A L I F O R N I A R E D W O O D

Redwood should be specified for:

All Exterior Trim
Balusters
Ceiling
Columns
Doors and Windows
Eaves
Fencing
Framing
General Mill Work
Gutters
Interior Trim
Lath
Lattice
Moulding
Mudsills
Newels
Panels
Pickets
Porch Flooring
Rails
Roofing (shingles and shakes)-

Septic Tanks
Siding
Sheathing
Studding
Sub-flooring

Redwood Best for Side Walls

The side walls of a house are as important as the roof or the foundation —they should be absolutely weather-proof, leak-proof, and impervious to dampness; they should last without expense, without paint if necessary, and should not crack, scale or rot, at the same time being capable of attractive treatment from an architectural viewpoint. Redwood beveled, resawn and drop siding are used universally for exterior covering in California, and they are fast coming into popular favor in the east.



A cozy, comfortable and inexpensive type of Redwood bungalow

R E S I S T S F I R E A N D R O T

C A L I F O R N I A R E D W O O D

Redwood is the most dependable wood for exterior trim. It is a general practice to use Redwood door and window frames in California. Where frames are made of other wood, Redwood is always used for that portion that comes in contact with the weather, as well as that part covered when the frame is set into the building and which is likely to be reached by moisture or rain seeping behind the casing. California houses built this way have no back rot.

More Durable Than Plaster

The plaster exterior has come to be a fad in many sections of the country. Its white, pebbly surface is attractive to the eye, but many architects doubt its lasting quality. This is particularly true in climates where there are extremes in temperature. A crack or scale on a plaster exterior mars its beauty, and the patch usually leaves an unsightly streak or blotch. Redwood siding, or a shingle or shake siding, is a covering that gives just as much artistic beauty as a plaster exterior. It can be stained or painted to any color, and adds to the value of your property because

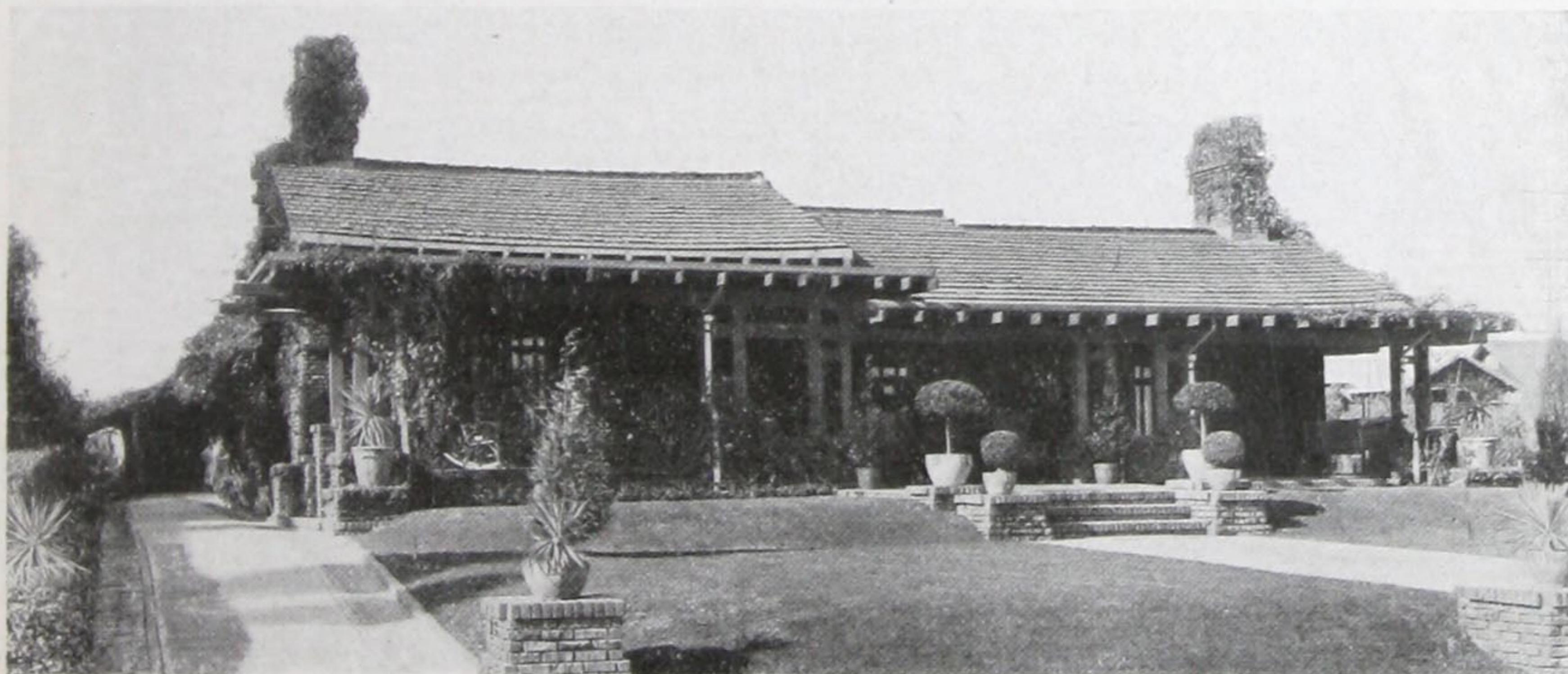
the exterior of your house looks just as uniformly attractive and is still as perfectly weatherproof 25 years after as it was the day it was built.

In planning your home you intend to build for comfort and beauty, as well as creating a live and growing asset in the property itself. If you sacrifice permanence and durability for the sake of temporary fad you make a bad investment. Redwood siding costs less than a plaster exterior, and it increases the value of your property.

Wonderful Interior Finish

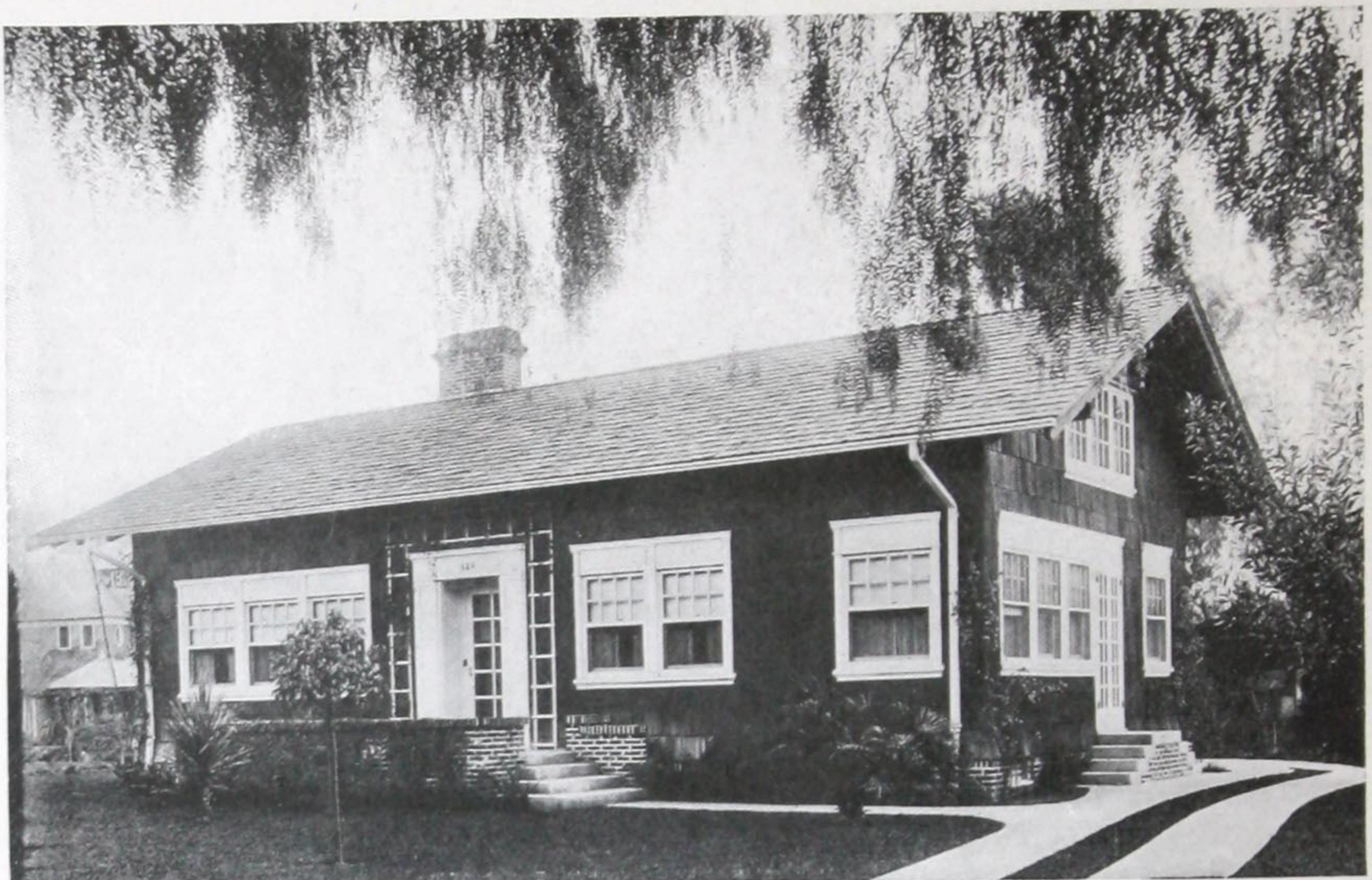
The home—whether palatial or modest—when built of Redwood and finished with Redwood panels and beamed ceilings bears the stamp of enduring individuality. Who would not feel a thrill to know that he is living under the protection of the wood of the “big trees” of California—trees that began their earthly career coincident with the life of the Christian Saviour!

For interior finish, panels, moulding, etc., its adaptability meets every



The roof lines of this Redwood bungalow give a touch of the Orient

WILL NOT SHRINK, SWELL OR WARP



Strikingly simple in design and an inexpensive type. Note the beauty of this bungalow in its setting under the foliage of the California Pepper Tree. The sidewalls are Redwood shales and the roof Redwood shingles

requirement perfectly. Redwood has an individuality all its own, and whether finished in the natural, or stained, it affords the architect the widest range of artistic possibilities as well as the greatest degree of satisfaction to the home lover.

For panels the "slash grain" gives a modest but beautiful figure because the annular ring growth of Redwood is, as a general rule, a close growth. "Vertical grain" is recognized by the absence of figure, and finishes with a beautiful but subdued effect. A careful selection for a combination of "vertical" and "slash grain" in panels or in trim is an ideal effect to be worked out by the architect or builder from his own ideas of contrast.

California Redwood has been used for years as interior trim for palatial homes both in California and in the East because of the exquisite effects attainable under the touch of the artist. The absence of pitch and raised

grain also makes it a splendid material for carving and other similar decorative effort.

Waxed and finished in the natural, Redwood gives a rich, warm, inviting and never-tiring tone—Redwood makes you love your home.

By use of stains especially prepared for Redwood it can be shaded to any color desired, lighter or darker than the natural wood, and without destroying the beauty of the grain or its remarkable individuality. This makes it possible to harmonize the color tone of the room with the draperies, carpets, and so forth.

The California Redwood Association maintains a stain and paint expert, and we will gladly send you samples showing the wonderful range of color possibilities that can be realized by the use of these stains. The stain is not sold. We give the formula and complete directions on the back of each individual sample. If

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the color you want is not among our standard stains we will cheerfully provide the formula upon request, and without cost to you. Any intelligent painter, interior decorator, or even a layman, can apply the stain satisfactorily if instructions are followed.

Resists Rot, and Doesn't Shrink

For contact with the ground as mudsills and underpinning, or for exposure to the weather as shingles, siding, exterior trim, porch columns and flooring, porch rails, etc., there is no wood as durable as Redwood.

When properly dried California Redwood does not shrink, warp, or swell. It is not affected by variations in temperature. Redwood doors "stay put"—they will not shrink, check or swell. A Redwood door can always be opened and closed without trouble. Redwood trim and panels do not shrink and expose unsightly edges.

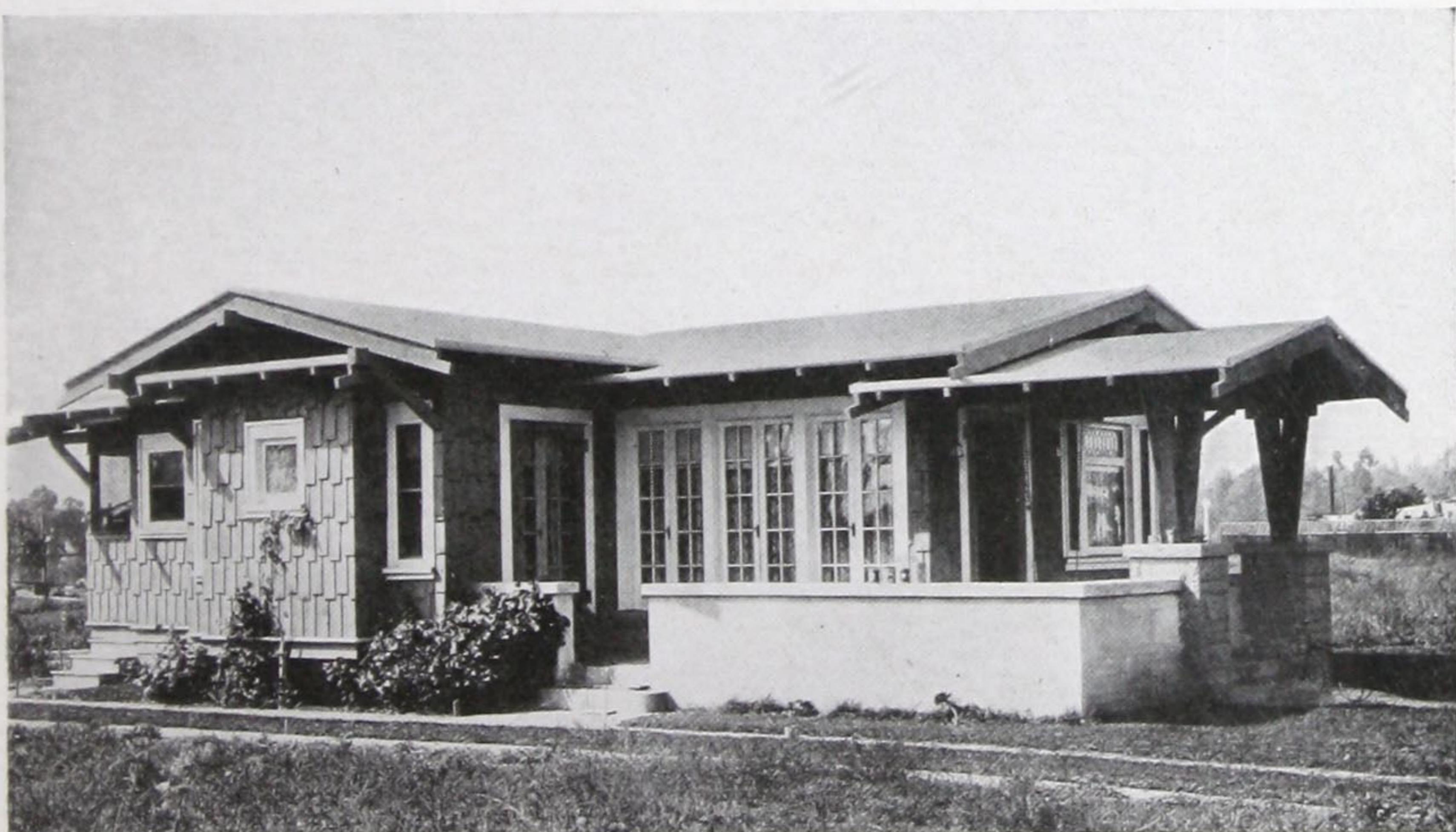
Redwood Shingles and Shakes

Redwood shingles or shakes as a roof or side wall covering give long life and fire protection.

No other shingle, or substitute roof covering gives the ideal combination of rot resistance and fire retardance, with the additional merit of being rust proof and free from tar, gum or any other substance to melt in the sun and fill gutters, water pipes or drains.

Always lay Redwood shingles or shakes with zinc-coated cut iron nails. This will prolong the life of your roof many years. The ordinary steel shingle nail will rust out while the shingle itself is still in first-class condition. A Redwood shingled roof, laid with the right kind of nails, will give satisfactory service from 30 to 50 years.

The Redwood shake is a 36-inch long shingle, 6 inches wide, and $\frac{1}{4}$ of an inch uniform thickness. For best



Another design of Redwood shakes for side walls

WILL NOT SHRINK, SWELL OR WARP

C A L I F O R N I A R E D W O O D

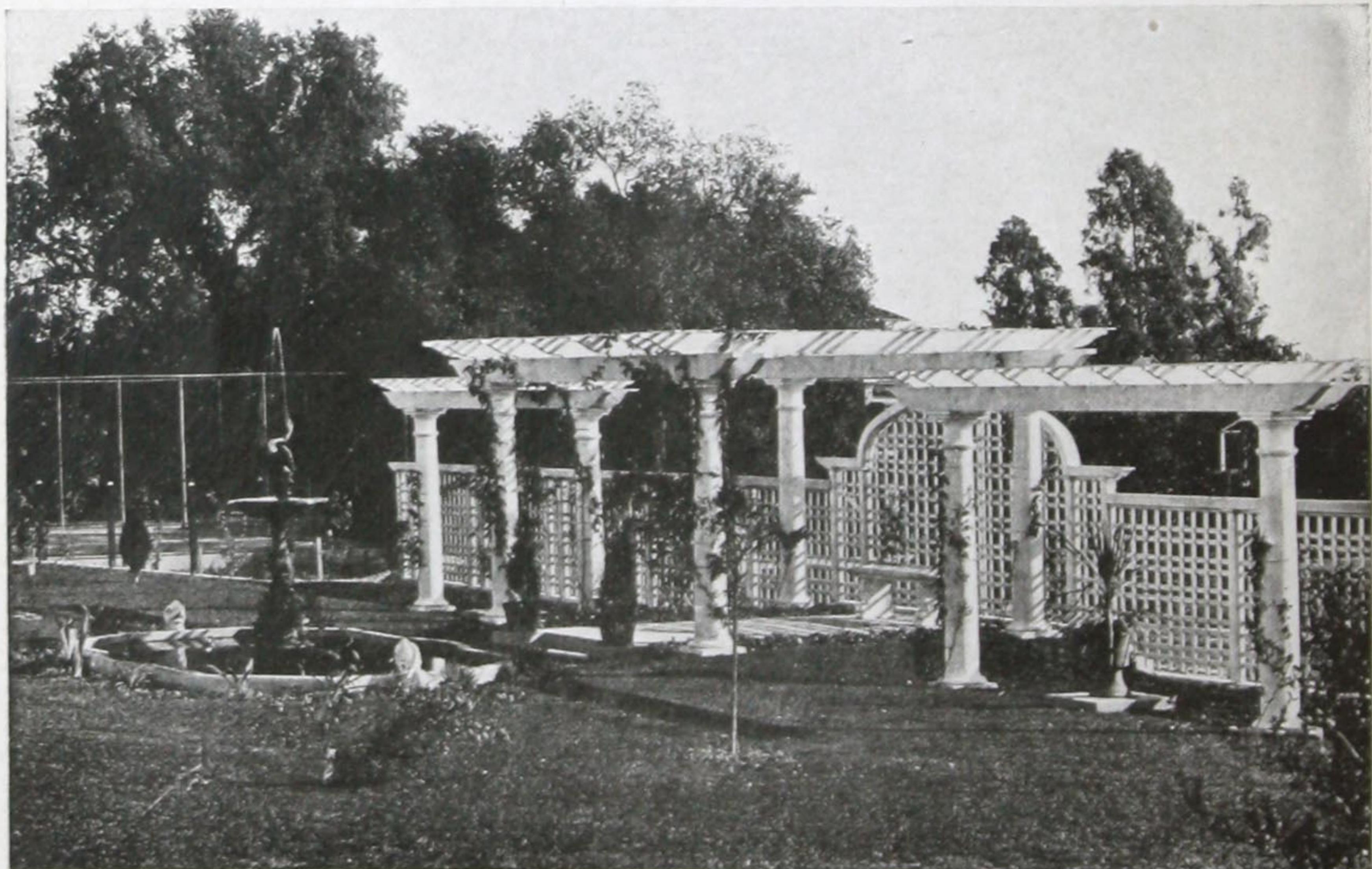


A combination of Redwood and plaster

service on roofs, one-third to one-quarter pitch, they may be laid 24 inches to the weather, which means an overlap of 12 inches. When the roof is more than quarter pitch, a 6-inch overlap, which gives a 30-inch weather exposure, will suffice, al-

though a 12-inch overlap is recommended. There is no set rule for laying shales to the weather, and the overlap can be varied to suit local conditions.

The Redwood shake, which may be either split or sawn, is a typical



Redwood's resistance to rot and the action of the elements makes it especially suitable for pergolas and porches—in fact, for all exterior uses

R E S I S T S F I R E A N D R O T



Showing the pliancy of the Redwood shingle. Residence of Ray Zug, Esq., Pasadena, California. The shingles were dipped in hot creosote and conformed to the roof design while hot. Roof laid five years ago, yet even the shingles bent to a reverse curve around the window are true to design—and they will stay so regardless of weather conditions

C A L I F O R N I A R E D W O O D

California covering, and ideal for everything from bungalow to barn. Both shingles and shingles are used extensively for side walls because of the artistic effects produced, as well as being a splendid weatherproof covering.

The Redwood shingle is sufficiently elastic to shape it in a reverse curve, if desired. This is done by soaking it in hot creosote before laying. In this way shingles can be bent around a curve (see photograph of the Zug home). In addition to giving it pliancy, the shingles can be laid true to the form desired, with assurance that they will hold their shape and the design of the roof indefinitely. In laying roofs this way it is necessary to use nails liberally.

Many homes in California have what are known as "thatched" roofs. This is a raised effect produced by increasing the number of layers of shingles. They are laid from 3 to 8 thick in the "thatch," according to the height desired.

You can buy Redwood shingles in two grades, No. 1 Clear and ★A★. The former is a carefully selected vertical grain shingle, free from all defects, and is used invariably on coverings where service demands first consideration. The latter is a 10-inch clear butt shingle, "slash" grain being no defect, and it is recommended for side walls rather than for roofing.

In 1893 Redwood shingles were taken from the roof of General U. S. Grant's headquarters, at Fort Humboldt, California, where they had been for 40 years. The wood was absolutely sound and without a trace of rot, although the shingles were worn thin by wind-driven sand.

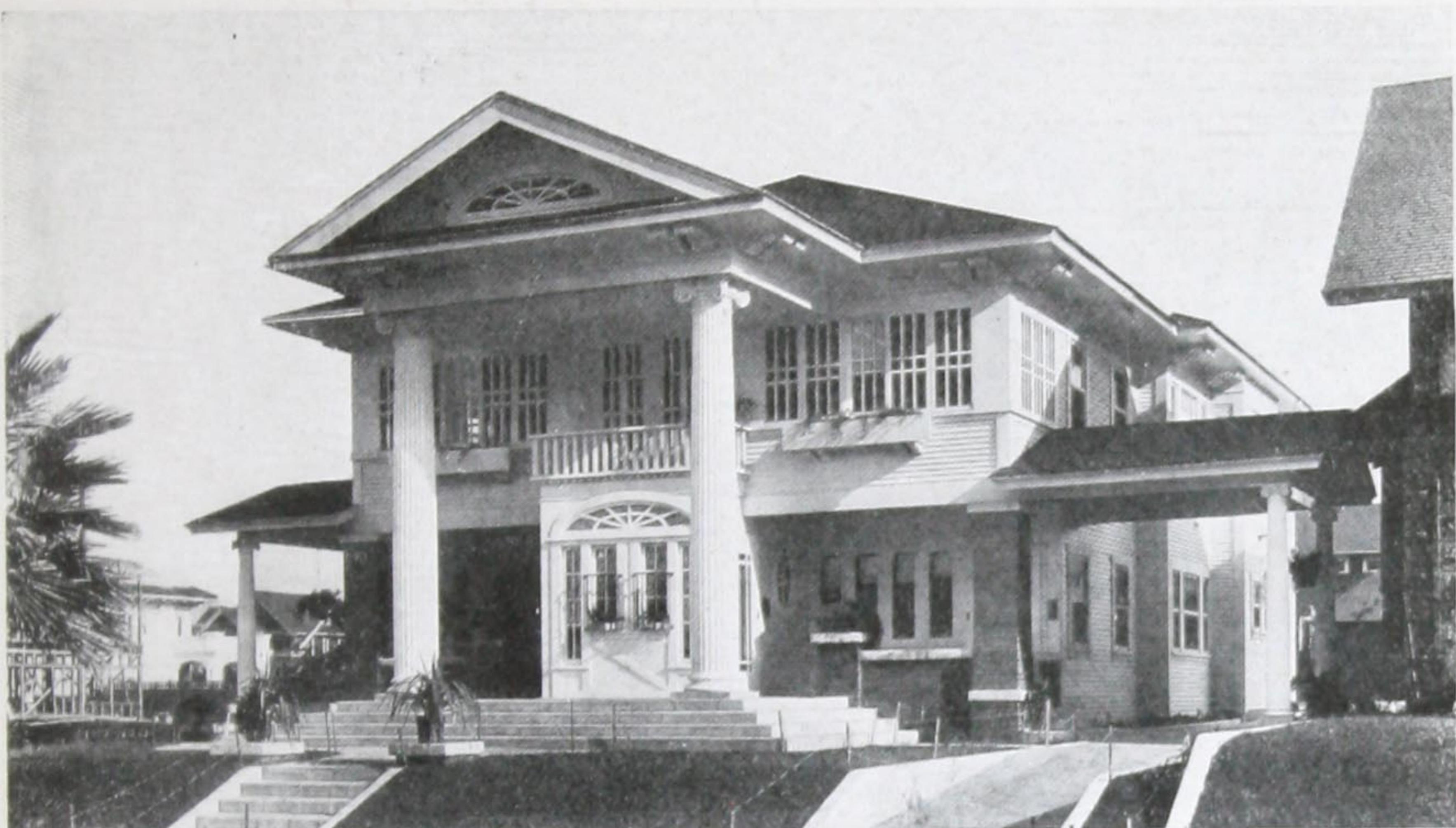
A typical example of Redwood shingle service is found in the following letter from A. Cottrell, Eureka, Cal.:

"In the winter of 1870 I shingled my house at Eureka with Redwood shingles. They were first painted about the year



Showing use of Redwood boards for sheathing

R E S I S T S F I R E A N D R O T

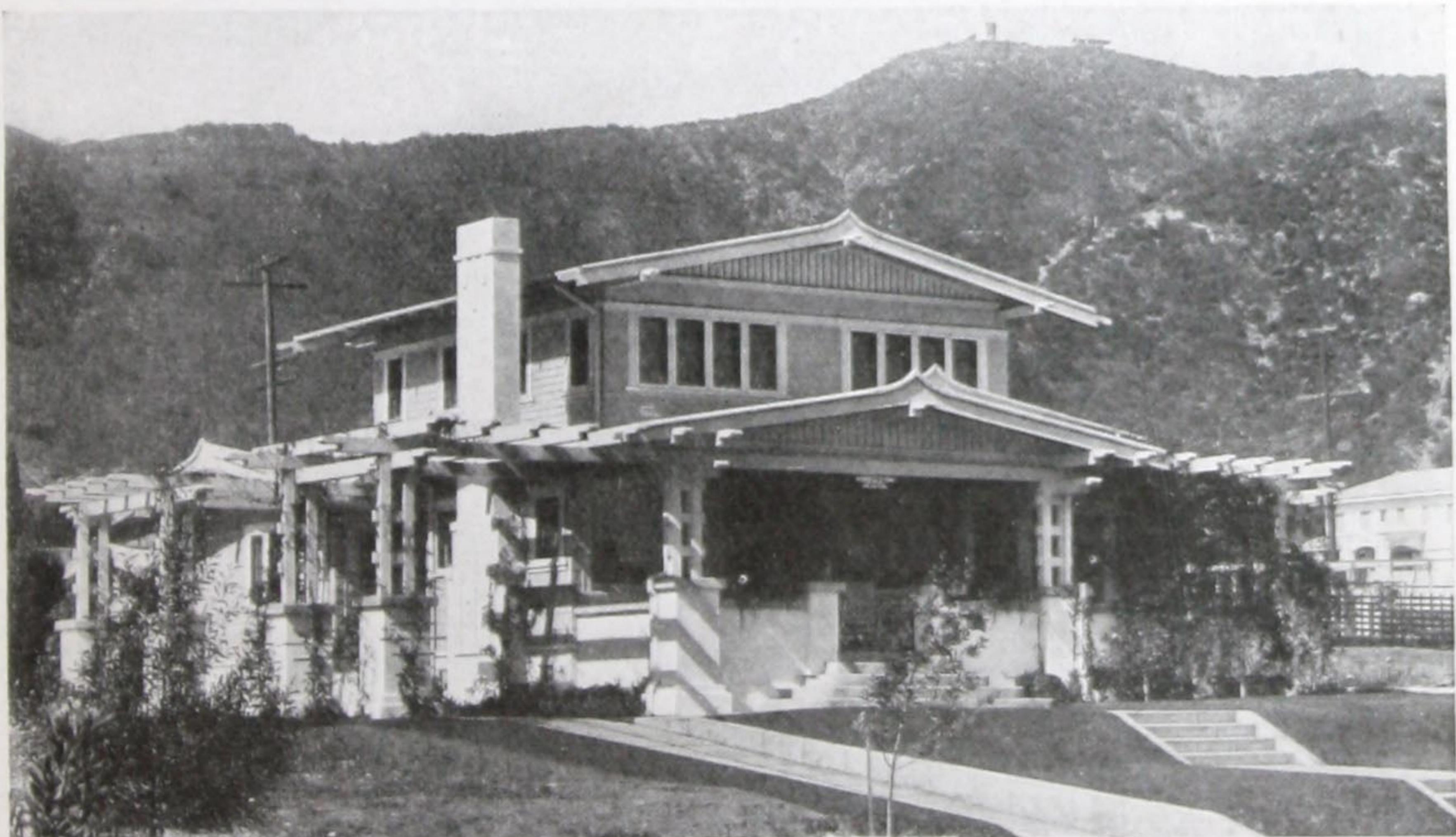


More pretentious Redwood construction

1880, and again about 1895. The shingles were not removed from the roof of the house until September, 1913. They were in service 42 years, and, on being taken off the roof, were found to be in first-class condition."

Redwood Lath

Redwood lath have given most satisfactory service for many years, the fire-retarding property of Redwood giving lath of this material a decided advantage over the ordinary



A charming Redwood home under the California hills

WILL NOT SHRINK, SWELL OR WARP



Exquisite decorative possibilities of sand-blasted Redwood. Main entrance, Lancaster Hall Apartments, San Francisco. Rousseau & Rousseau, architects

kinds. For best results the rough coat of plaster should be allowed to dry thoroughly before applying the finish coat.

Sand-Blasting

Sand-blasting is not a new experiment on wood, but the texture and grain of Redwood make it possible to apply it with exquisite results.

Sand-blasting is done by using a sharp sand and cutting through metal stencils.

Almost any figure can be produced by the skillful handling of the sand-blasting tool.

The absence of pitch and wide hard grain, and the close rings in the Redwood impart a remarkably beautiful effect. The most satisfactory sand-blasting work is done in verti-

cal grain pieces. The wood must be thoroughly dry to insure the best results.

Sand-blasted Redwood, combined with stain by which any color tone desired may be achieved, makes a remarkably beautiful and artistic combination in a decorative way that is especially suitable for hotels, apartment houses, public buildings, as well as in the modest home, for this is not an expensive treatment.

Mill Work

The texture of Redwood makes it a splendid wood for mill work of all kinds. From a manufacturing standpoint it can be handled more economically and works with less waste than almost any other wood.

It is manufactured into all kinds

R E S I S T S F I R E A N D R O T



*A splendid example of Redwood shakes for exterior walls and shingles for roof covering.
Residence of H. O. Harrison, Esq., St. Francis Wood, San
Francisco. Ward & Blohme, architects*

of general mill work, such as frames for doors and windows, mouldings, columns for interior and exterior, newels, balusters, rails, spindles, pickets, battens, trim and specialty products. Many are built up on the linderman machine, with its dove-tail glued joint—a joint that Redwood makes perfectly.

Redwood mill work is preferable, from a consumer's standpoint, because of the wide range of possibilities in connection with its finish. It can be waxed in the natural; it can be stained to any color desired, or it can be painted or enameled. The natural surface of Redwood is an excellent base for white enamel because it can be sanded to a smooth surface that produces a glassy finish.

The individual Redwood lumber companies have elaborate catalogues on the different standard planing

mill products, which will be sent on request by those mills.

Mantels

As Redwood can be worked readily to beautiful decorative effects and has a high resistance to fire, some of the most beautiful mantels in the Western country are made of Redwood.

Redwood mantels always hold their joints, and decorative work, whether carving, sand-blasted or merely high polish, can be applied to Redwood easily and in a thoroughly satisfactory manner. The natural surface of Redwood is such that it takes and holds glue with a tight grip, and it can be depended upon to hold its shape.

Its resistance to rot insures a long life which applies as much to damp-

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Interior of the Harrison residence, St. Francis Wood, San Francisco, showing Redwood finished in white enamel. Ward & Blohme, architects

ness that may get in behind the mantel in the brick work as it does to dry rot.

Pergolas

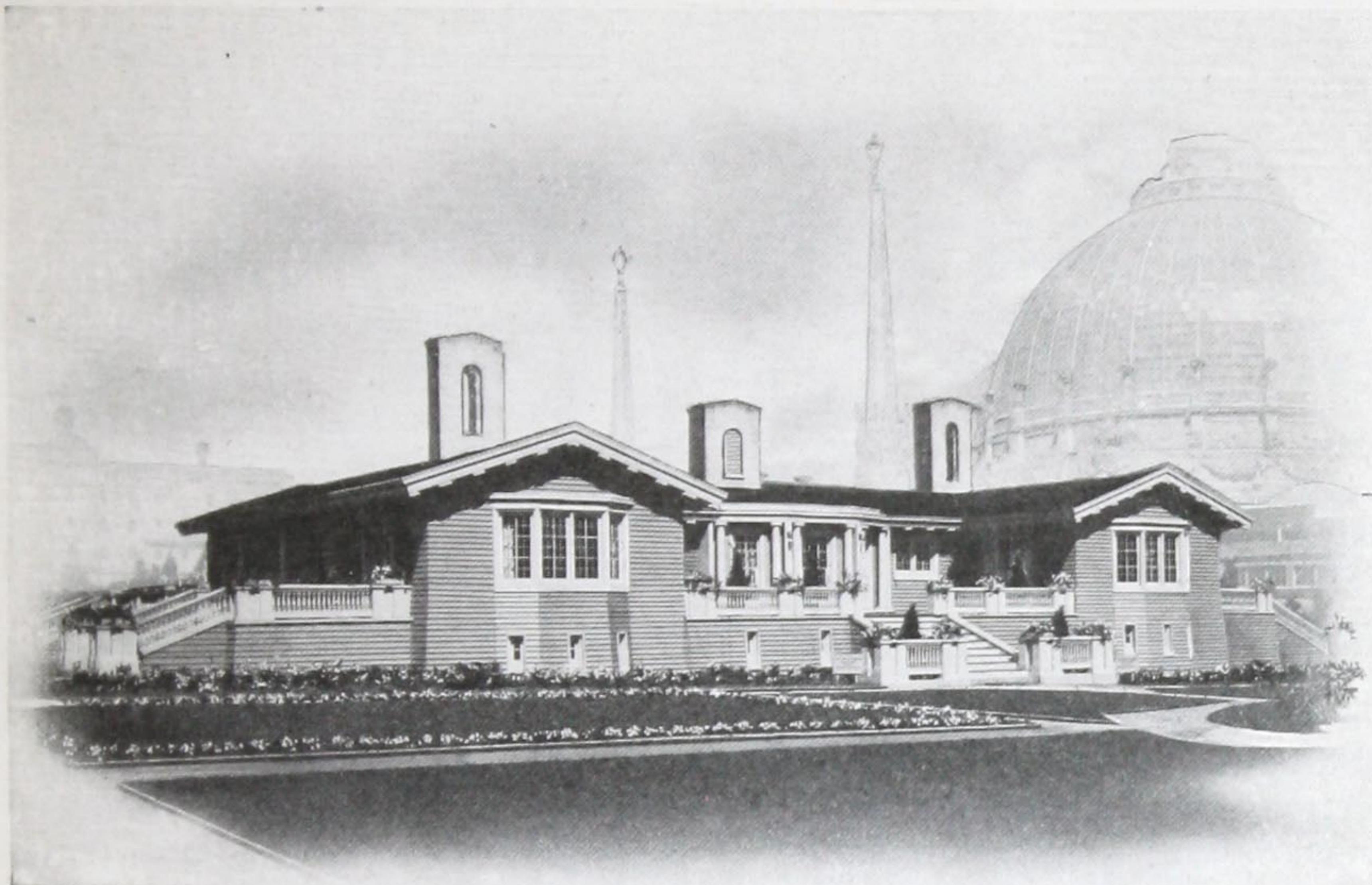
The pergola—the garden shade and adornment of ancient Greece and

Rome—is fast growing in favor for its utility and decorative effect on the lawn. The pergola is the final artistic touch to the home.

Like the sleeping porch, the pergola, because of its being outdoors, should be built entirely of Redwood



Dining room of the "Home of Redwood." The charm and beauty of Redwood for interior finish was clearly demonstrated in this bungalow at the San Francisco exposition



The "Home of Redwood" at the Panama-Pacific International Exposition, San Francisco, 1915. This bungalow was built throughout of California Redwood. Louis Christian Mullgardt, architect

—of Redwood columns, girders, flooring, rafters and lattice. Then you will have no rot due to contact with the ground or exposure to weather.

Redwood columns are built of staves properly dried, and there is no shrink, warp, or swell to throw them out of alignment. Redwood's perfect adaptability to paint also contributes to the reasons why it is the best wood for a pergola.

Sleeping Porches

Modern medical science recommends out-door sleeping for sturdy bodies and the joy of healthful living.

The sleeping porch, therefore, has come into vogue. Thousands are being built on homes throughout the country every day.

Redwood should be used in building the sleeping-porch because of its splendid weathering qualities—in fact, the nature of the wood is perfectly adapted to this usage.

A sleeping porch is an economy in the reduction of doctor bills, and a Redwood sleeping porch is an actual saving in the long run. It should be built entirely of Redwood.

The Home of Redwood

"The Home of Redwood" was a magnificent Redwood bungalow at the Panama-Pacific International Exposition, in San Francisco, in 1915.

The foundation, underpinning, floor joists, and frame are all built of Merchantable Redwood.

The entire building is sheathed inside and out, with surfaced one-inch Construction Redwood, building paper being put next to the sheathing and immediately underneath the exterior and interior finish.

The roof is covered with Sawn Redwood Shakes dipped in shingle stain before laying.

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The sides are covered with a combination of Sawn Redwood Shakes and a special pattern of Clear Dry Redwood Siding.

The bathrooms, kitchen, pantry, and servants' room are finished in select Dry Tongue-and-Groove Redwood.

The other rooms are finished in Clear Dry Redwood Panels, as shown in the accompanying photograph.

This bungalow was awarded the Grand Prize by the Exposition Commissioners, which is the highest possible recognition that the Exposition could bestow.

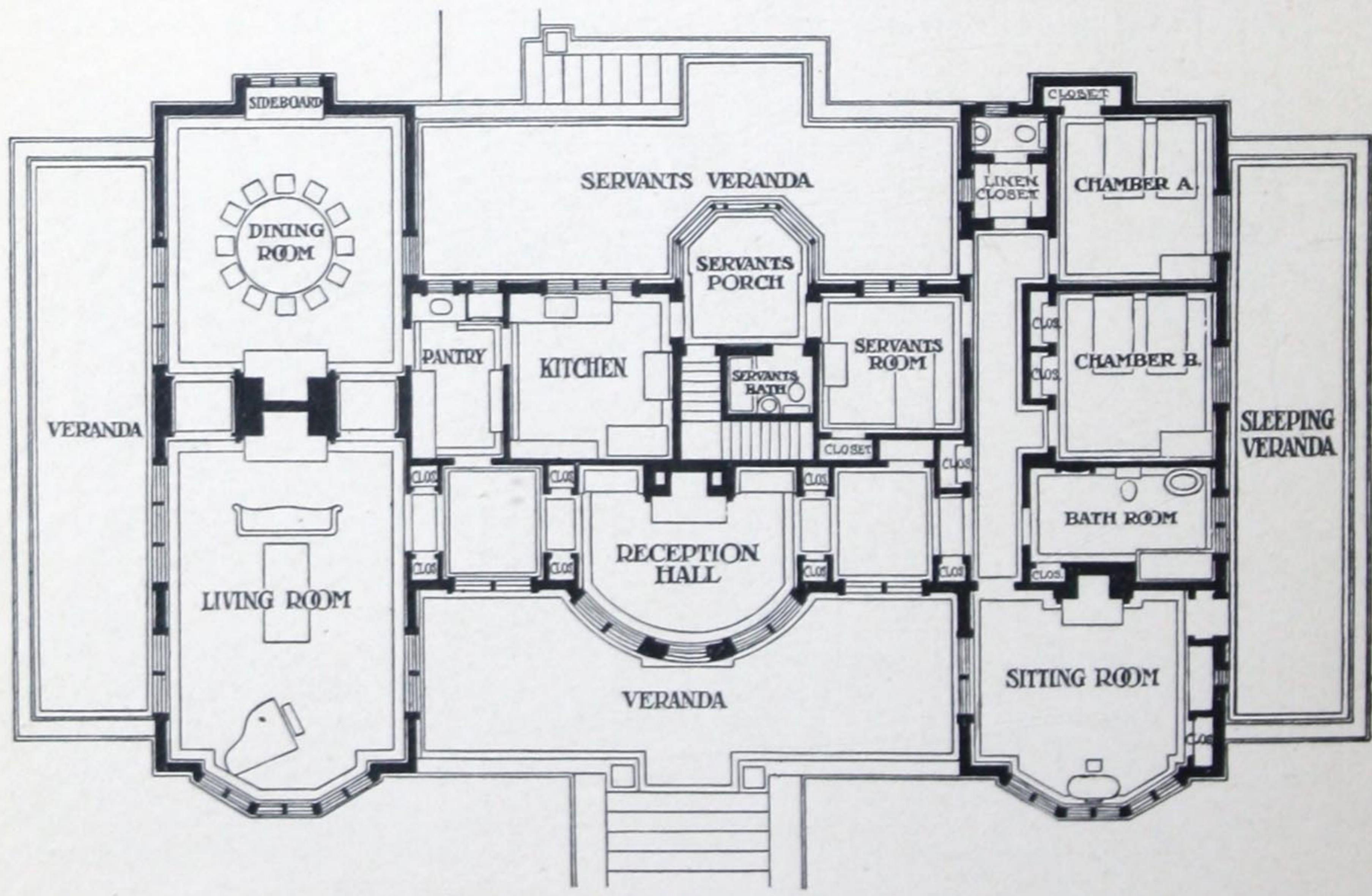
After the close of the fair the bungalow was sold for \$4,000 (the highest price paid for any of fair buildings) and it was moved onto a float and towed across the Bay of San Francisco and it is now one of the most beautiful country homes near San Rafael.

Be Sure and Use Redwood

Do not specify any wood until you have thoroughly investigated what Redwood means as a home-building material. Redwood is not expensive. It may be slightly higher than some woods, depending upon locality. When you build with Redwood you save in the long run any increased first cost by avoiding the necessity of continual patching and repairs.

California Redwood can be had in your locality. Inquire of your local retail lumber dealer—he will see that your requirements are supplied. Should you have difficulty in securing Redwood, or specific information about it, write us—we are here to serve you.

CALIFORNIA REDWOOD ASSOCIATION
Exposition Building
San Francisco, California



R E S I S T S F I R E A N D R O T

